CONTENTS

PART 1 JANUARY 1999

LAAKKONEN, J., HENTTONEN, H., NIEMIMAA, J. and SOVERI, T. Seasonal dynamics of *Pneumocystis carinii* in the field vole, *Microtus agrestis*, and in the common shrew, *Sorex araneus*, in Finland 1

POSTMA, N. S., HERMSEN, C. C., CROMMELIN, D. J. A., ZUIDEMA, J. and ELING, W. M. C. Treatment with recombinant human tumour necrosis factor-α reduces parasitaemia and prevents *Plasmodium berghei* K173-induced experimental cerebral malaria in mice 7

DIAS FILHO, B. P., BENCHIMOLI, M., ANDRADE, A. F. B., ANGLUSTER, J. and DE SOUZA, W. Purification and immunocytochemical localization of neuraminidase from *Tritrichomonas foetus* 17

DILLON, R. J. and LANE, R. P. Detection of *Leishmania* lipophosphoglycan binding proteins in the gut of the sandfly vector 27

HUMAIR, P. F., RAIS, O. and GERN, L. Transmission of *Borrelia afzelii* from *Apodemus* mice and *Clethrionomys* voles to *Ixodes ricinus* ticks: differential transmission pattern and overwintering maintenance 33

TERRY, R. S., DUNN, A. M. and SMITH, J. E. Segregation of a microsporidian parasite during host cell mitosis 43

MORGAN, U. M., DEPLAZES, P., FORBES, D. A., SPANO, F., HERTZBERG, H., SARGENT, K. D., ELLIOT, A. and THOMPSON, R. C. A. Sequence and PCR–RFLP analysis of the internal transcribed spacers of the rDNA repeat unit in isolates of *Cryptosporidium* from different hosts 49

WAHLSTRÖM, K., NIKKILÄ, T. and UGGLA, A. *Sarcocystis* species in skeletal muscle of otter (*Lutra lutra*) 59

HAAG, K. L., ARAÚJO, A. M., GOTTSTEIN, B., SILES-LUCAS, M., THOMPSON, R. C. A. and ZAHA, A. Breeding systems in *Echinococcus granulosus* (Cestoda: Taeniidae): selfing or outcrossing? 63

BØGH, H. O., ZHU, X. W., QIAN, B.-Z. and GASSER, R. B. Scanning for nucleoide variations in mitochondrial DNA fragments of *Schistosoma japonicum* by single-strand conformation polymorphism 73

HAMILTON, J. V., CHIODINI, P. L., FALLON, P. G. and DOENHOFF, M. J. Periodate-sensitive immunological cross-reactivity between keyhole limpet haemocyanin (KLH) and serodiagnostic *Schistosoma mansoni* egg antigens 83

LINDBERG, R., JOHANSEN, M. V., NILSSON, C. and NANSEN, P. An immunohistological study of phenotypic characteristics of cells of the inflammatory response in the intestine of *Schistosoma bovis*-infected goats 91

KABATEREINE, N. B., VENNERVALD, B. J., OUMA, J. H., KEMIJUMBI, J., BUTTERWORTH, A. E., DUNNE, D. W. and FULFORD, A. J. C. Adult resistance to schistosomiasis mansoni: age-dependence of reinfection remains constant in communities with diverse exposure patterns 101

STEVENS, J. R., NOYES, H. A., DOVER, G. A. and GIBSON, W. C. The ancient and divergent origins of the human pathogenic trypanosomes, *Trypanosoma brucei* and *T. cruzi* 107

ROBERTS, H. C., HARDIE, L. J., CHAPPELL, L. H. and MERCER, J. G. Parasite-induced anorexia: leptin, insulin and corticosterone responses to infection with the nematode, *Nippostrongylus brasiliensis* 117

PART 2 FEBRUARY 1999

HURST, G. D. D., BANDI, C., SACCHI, L., COCHRANE, A. G., BERTRAND, D., KARACA, I. and MAJERUS, M. E. N. *Adonia variegata* (Coleoptera: Coccinellidae) bears maternally inherited Flavobacteria that kill males only 125

FAVRE, N., RYFFEL, B. and RUDIN, W. The development of murine cerebral malaria does not require nitric oxide production 135
FAVRE, N., RYFFEL, B. and RUDIN, W. Parasite killing in murine malaria does not require nitric oxide production 139
SENOK, A. C., LI, K., NELSON, E. A. S. and CHUNG, K. W. *In vitro* sensitivity of artemeter in *Plasmodium falciparum*-infected beta-thalassaemic trait erythrocytes 145
CHEN, X. Q., SINGH, M., HOWE, J., HO, L. C., TAN, S. W. and YAP, E. H. *In vitro* encystation and excystation of *Blastocystis ratti* 151
FERNANDES, O., MANGIA, R. H., LISBOA, C. V., PINHO, A. P., MOREL, C. M., ZINGALES, B., CAMPBELL, D. A. and JANSEN, A. M. The complexity of the sylvatic cycle of *Trypanosoma cruzi* in Rio de Janeiro state (Brazil) revealed by the non-transcribed spacer of the mini-exon gene 161
CLARK, R. K. and KUHN, R. E. *Trypanosoma cruzi* does not induce apoptosis in murine fibroblasts 167
RANDOLPH, S. E., MIKLISOVÁ, D., LYSY, J., ROGERS, D. J. and LABUDA, M. Incidence from coincidence: patterns of tick infestations on rodents facilitate transmission of tick-borne encephalitis virus 177
LAURSEN, J. R. and YOSHINO, T. P. *Biomphalaria glabrata* embryonic (Bge) cell line supports *in vitro* miracidial transformation and early larval development of the deer liver fluke, *Fascioloides magna* 187
TCHAKOUTÉ, V. L., BRONSVOORT, M., TANYA, V., RENZ, A. and TREES, A. J. Chemoprophylaxis of *Onchocerca* infections: in a controlled, prospective study ivermectin prevents calves becoming infected with *O. ochengi* 195
MARTINEZ, J., PEREZ SERRANO, J., BERNADINA, W. E. and RODRIGUEZ-CAABEIRO, F. Influence of parasitization by *Trichinella spiralis* on the levels of heat shock proteins in rat liver and muscle 201
WU, Z., NAGANO, I., POZIO, E. and TAKAHASHI, Y. Polymerase chain reaction–restriction fragment length polymorphism (PCR-RFLP) for the identification of *Trichinella* isolates 211

PART 3 MARCH 1999

CHATTERJEE, S., DRUILHE, P. and WERY, M. Irradiated sporozoites prime mice to produce high antibody titres upon viable *Plasmodium berghei* sporozoite challenge, which act upon liver-stage development 219
LINDSAY, D. S., DUBEY, J. P., HORTO, K. M. and BOWMAN, D. D. Development of *Sarcocystis falcatula* in cell cultures demonstrates that it is different from *Sarcocystis neurona* 227
JÄKEL, T., ARCHER-BAUMANN, C., BOEHMLER, A. M., SORGER, I., HENKE, M., KLIEMT, D. and MACKENSTEDT, U. Identification of a subpopulation of merozoites of *Sarcocystis singaporensis* that invades and partially develops inside muscle cells *in vitro* 235
PALENZUELA, O., ÁLVAREZ-PELLITERO, P. and SITJÀ-BOBADILLA, A. Glomerular disease associated with *Polysporoplasma sparis* (Myxozoa) infections in cultured gilthead sea bream, *Sparus aurata* L. (Pisces: Teleostei) 245
GUYATT, H. L., BROOKER, S. and DONNELLY, C. A. Can prevalence of infection in school-aged children be used as an index for assessing community prevalence? 257
HIRATA, M., NAKASHIMA, T. and FUKUMA, T. Characteristics of eosinophilic inclusions within *Schistosoma japonicum* eggs 269
HOLA-JAMRISKA, L., DALTON, J. P., AASKOV, J. and BRINDLEY, P. J. Dipeptidyl peptidase I and III activities of adult schistosomes 275
PIT, D. S. S., DE GRAAF, W., SNOEK, H., DE VLAS, S. J., BAETA, S. M. and POLDERMAN, A. M. Diagnosis of *Oesophagostomum bifurcum* and hookworm infection in humans: day-to-day and within-specimen variation in larval counts 283
ASHWORTH, S. T. and KENNEDY, C. R. Density-dependent effects of *Anguillicola crassus* (Nematoda) within its European eel definitive host 289

SKUCE, P. J., STEWART, E. M., SMITH, W. D. and KNOX, D. P. Cloning and characterization of glutamate dehydrogenase (GDH) from the gut of *Haemonchus contortus* 297

KLÄGER, S. L., HAGEN, H.-E. and BRADLEY, J. E. Effects of an *Onchocerca*-derived cysteine protease inhibitor on microfilariae in their simuliid vector 305

HOUSTON, K. M. and HARNETT, W. Mechanisms underlying the transfer of phosphorylcholine to filarial nematode glycoproteins—a possible role for choline kinase 311

JONES, M. K., ZHANG, L.-H., GOULD, R. J. and McMANUS, D. P. Ultrastructural localization of an *Echinococcus granulosus* laminin-binding protein 319

PART 4 APRIL 1999

NICHANI, A. K., THORP, B. H., BROWN, G. G. D., CAMPBELL, J. D. M., BROWN, D. J., RITCHIE, M. and SPOONER, R. L. *In vivo* development of *Theileria annulata*: major changes in efferent lymph following infection with sporozoites or allogeneic schizont-infected mononuclear cells 327

ZECHINI, B., CORDIER, L., NGONSEU, E., D'ALESSANDRO, U., WERY, M. and CHATTERJEE, S. *Plasmodium berghei* development in irradiated sporozoite-immunized C57 BL6 mice 335

BUCKLING, A., RANFORD-CARTWRIGHT, L. C., MILES, A. and READ, A. F. Chloroquine increases *Plasmodium falciparum* gametocytogenesis *in vitro* 339

AREZ, A. P., SNOUNOU, G., PINTO, J., SOUSA, C. A., MODIANO, D., RIBEIRIO, H., FRANCO, A. S., ALVES, J. and DO ROSARIO, V. E. A clonal *Plasmodium falciparum* population in an isolated outbreak of malaria in the Republic of Cabo Verde 347

ELLIS, J. T., MORRISON, D. A., LIDDELL, S., JENKINS, M. C., MOHAMMED, O. B., RYCE, C. and DUBEY, J. P. The genus *Hammondia* is paraphyletic 357

ATKINSON, R., HARPER, P. A. W., RYCE, C., MORRISON, D. A. and ELLIS, J. T. Comparison of the biological characteristics of two isolates of *Neospora caninum* 363

McCANN, S. H. E., ERESH, S. and BARKER, D. C. Kinetoplast minicircle DNA from *Leishmania* (*Viannia*) *lainsoni* 371

GRISARD, E. C., CAMPBELL, D. A. and ROMANHA, A. J. Mini-exon gene sequence polymorphism among *Trypanosoma rangeli* strains isolated from distinct geographical regions 375

McCARTHY, A. M. The influence of temperature on the survival and infectivity of the cercariae of *Echinoparyphium recurvatum* (Digenea: Echinostomatidae) 383

COCUDE, C., PIERROT, C., CÊTRE, C., FONTAINE, J., GODIN, C., CAPRON, A. and KHALIFE, J. Identification of a developmentally regulated *Schistosoma mansoni* serine protease homologous to mouse plasma kallikrein and human factor 1 389

LOPEZ DE MENDOZA, M. E., CURTIS, R. H. C. and GOWEN, S. Identification and characterization of excreted-secreted products and surface coat antigens of animal and plant-parasitic nematodes 397

MÜLLER-GRAF, C. D. M., WOOLHOUSE, M. E. J. and PACKER, C. Epidemiology of an intestinal parasite (*Spirometra* spp.) in two populations of African lions (*Panthera leo*) 407

TOMPKINS, D. M. and HUDSON, P. J. Regulation of nematode fecundity in the ring-necked pheasant (*Phasianus colchicus*): not just density dependence 417

MÜLLER-GRAF, C. D. M., DURAND, P., FELIU, C., HUGOT, J.-P., O'CALLAGHAN, C. J., RENAUD, F., SANTALLA, F. and MORAND, S. Epidemiology and genetic variability of two species of nematodes (*Heligmosomoides polygyrus and Syphacia stroma* of *Apodemus* spp. 425

KEARN, G. C., EVANS-GOWING, R. and TAPPENDEN, T. The opercular bond in the egg-shell of the monogenean *Entobdella soleae*, a platyhelminth skin parasite of the common sole (*Solea solea*) 433

PART 5 MAY 1999

BIDERRE, C., MATHIS, A., DEPLAZES, P., WEBER, R., METENIER, G. and VIVARES, C. P. Molecular karyotype diversity in the microsporidian *Encephalitozoon cuniculi* 439

BREITENMOSER, A. C., MATHIS, A., BÜRGI, E., WEBER, R. and DEPLAZES, P. High prevalence of *Enterocytozoon bieneusi* in swine with four genotypes that differ from those identified in humans 447

SÁDLOVÁ, J. and VOLF, P. Occurrence of *Leishmania major* in sandfly urine 455

MONDRAGON, A., WILKINSON, S. R., TAYLOR, M. C. and KELLY, J. M. Optimization of conditions for growth of wild-type and genetically transformed *Trypanosoma cruzi* on agarose plates 461

VAN DEN ABBEELE, J., CLAES, Y., VAN BOCKSTAELE, D., LE RAY, D. and COOSEMANS, M. *Trypanosoma brucei* spp. development in the tsetse fly: characterization of the post-mesocyclic stages in the foregut and proboscis 469

BAGGE, A. M. and VALTONEN, E. T. Development of monogenean communities on the gills of roach fry (*Rutilus rutilus*) 479

HUBY, F., MALLET, S. and HOSTE, H. Role of acetylcholinesterase (AChE) secreted by parasitic nematodes on the growth of the cell line from epithelial origin HT29–D4 489

CAMPBELL, J. F., KOPPENHÖFER, A. M., KAYA, H. K. and CHINNASRI, B. Are there temporarily non-infectious dauer stages in entomopathogenic nematode populations: a test of the phased infectivity hypothesis 499

MODHA, J., ROBERTS, M. C., ROBERTSON, W. M., SWEETMAN, G., POWELL, K. A., KENNEDY, M. W. and KUSEL, J. R. The surface coat of infective larvae of *Trichinella spiralis* 509

ROSENZVIT, M. C., ZHANG, L.-H., KAMENETZKY, L., CANOVA, S. G., GUARNERA, E. A. and McMANUS, D. P. Genetic variation and epidemiology of *Echinococcus granulosus* in Argentina 523

PART 6 JUNE 1999

HOPKINS, R. M., CONSTANTINE, C. C., GROTH, D. A., WETHERALL, J. D., REYNOLDSON, J. A. and THOMPSON, R. C. A. PCR-based DNA fingerprinting of *Giardia duodenalis* isolates using the intergenic rDNA spacer 531

COLLINS, N. E. and ALLSOPP, B. A. *Theileria parva* ribosomal internal transcribed spacer sequences exhibit extensive polymorphism and mosaic evolution: application to the characterization of parasites from cattle and buffalo 541

NILSEN, F. Small subunit rDNA phylogeny of *Bacillidium* sp. (Microspora, Mrazekiidae) infecting oligochaets 553

ROMÃO, P. R. T., FONSECA, S. G., HOTHERSALL, J. S., NORONHA-DUTRA, A. A., FERREIRA, S. H. and CUNHA, F. Q. Glutathione protects macrophages and *Leishmania major* against nitric oxide-mediated cytotoxicity 559

BANERJEE, C., SARKAR, D. and BHADURI, A. Ca^{2+} and calmodulin-dependent protein phosphatase from *Leishmania donovani* 567

DA-SILVA, S. A. G., COSTA, S. S. and ROSSI-BERGMANN, B. The anti-leishmanial effect of *Kalanchoe* is mediated by nitric oxide intermediates 575

HARROP, R., COULSON, P. S. and WILSON, R. A. Characterization, cloning and immunogenicity of antigens released by lung-stage larvae of *Schistosoma mansoni* 583

TCHUEM TCHUENTE, L. A., SOUTHGATE, V. R., THÉRON, A., JOURDANE, J., LY, A. and GRYSEELS, B. Compatibility of *Schistosoma mansoni* and *Biomphalaria pfeifferi* in Northern Senegal 595

MARTINEZ, J., PEREZ-SERRANO, J., BERNADINA, W. E. and RODRIGUEZ-CAABEIRO, F. Shock response induced in rat brain and spleen during primary infection with *Trichinella spiralis* larvae 605

WU, Z., NAGANO, I. and TAKAHASHI, Y. A panel of antigens of muscle larvae of *Trichinella spiralis* and *T. pseudospiralis* as revealed by two-dimensional Western blot and immunoelectron microscopy 615

TOENJES, S. A., SPOLSKI, R. J., MOONEY, K. A. and KUHN, R. E. The systemic immune response of BALB/c mice infected with larval *Taenia crassiceps* is a mixed Th1/Th2-type response 623

NIE, P. and HOOLE, D. Antibody response of carp, *Cyprinus carpio* to the cestode, *Bothriocephalus acheilognathi* 635